

Philips Lighting Recommendations

CEC Workshop
January 15, 2008

Robert Erhardt
Philips Lighting Electronics

Systems Approach

- Lower limits on LPD has limited ability to minimize total lighting energy usage
- Specifying CEE limits for high efficiency T8 results in approximately 3-5% power savings compared to typical T8 IS luminaires
- By contrast, a systems approach can reduce total lighting energy usage by as much as 63% according to a recent DOE study

Dimming and Controls

- It can be shown that just giving users control of their individual light levels can result in 20-40% in energy savings as users tailor their lighting to their needs
- Use of occupancy sensing can also result in similar savings although not cumulative
- Daylight harvesting can result in over 70% energy savings during periods of peak energy usage when energy is at a premium

DOE CLI

- The DOE Commercial Lighting Initiative is studying energy savings from lighting systems and is developing a tool for verification of such systems
- Systems optimized for LPD are projected to save 9-28% energy compared to a baseline
- Systems further optimized for lighting control with daylight harvesting are projected to save 33-63% energy compared to the same baselines
- NEMA is working with PNNL and the DOE to define product types for verification of system performance with the new DOE tool

Recommendation

- LPD alone will not result in the energy savings needed to meet the provisions of AB 1109
- A systems approach can meet the energy savings stipulated by AB 1109 for new lighting systems using today's technology
- Philips Lighting urges the CEC to look to the systems approach being explored by the DOE CLI in meeting the requirements for AB 1109 in California